

FIG. 1

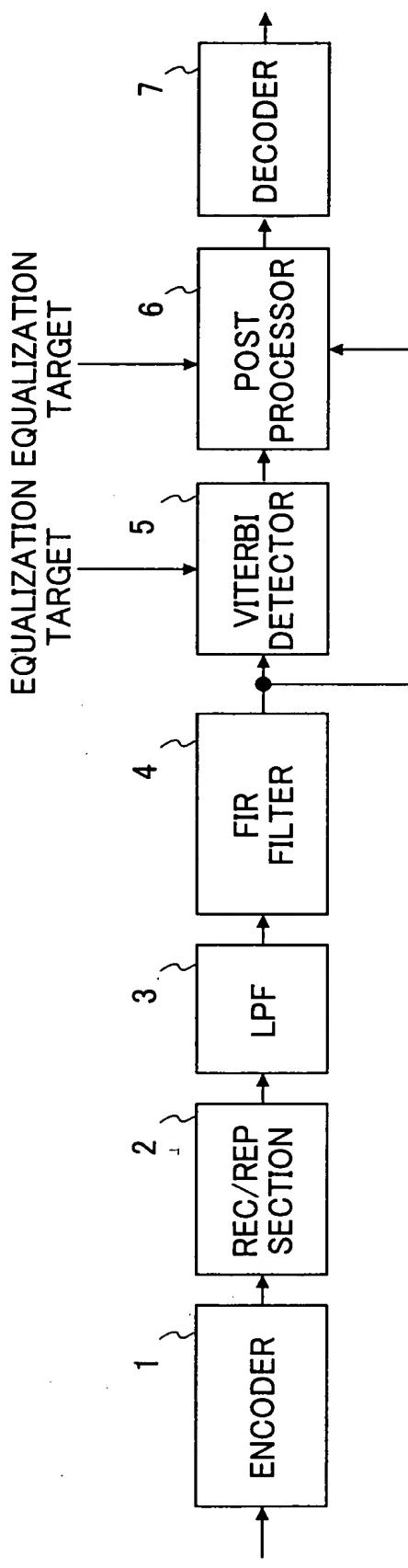


FIG. 2

SIGNAL AMPLITUDE

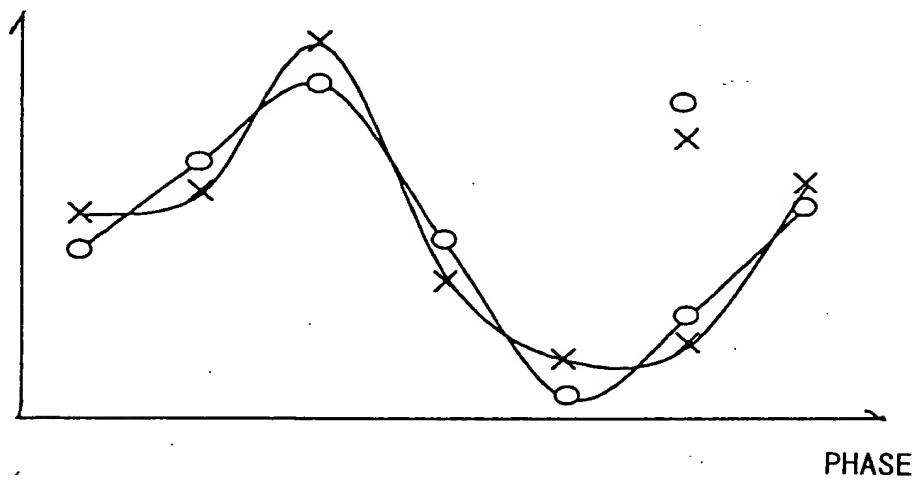


FIG.3

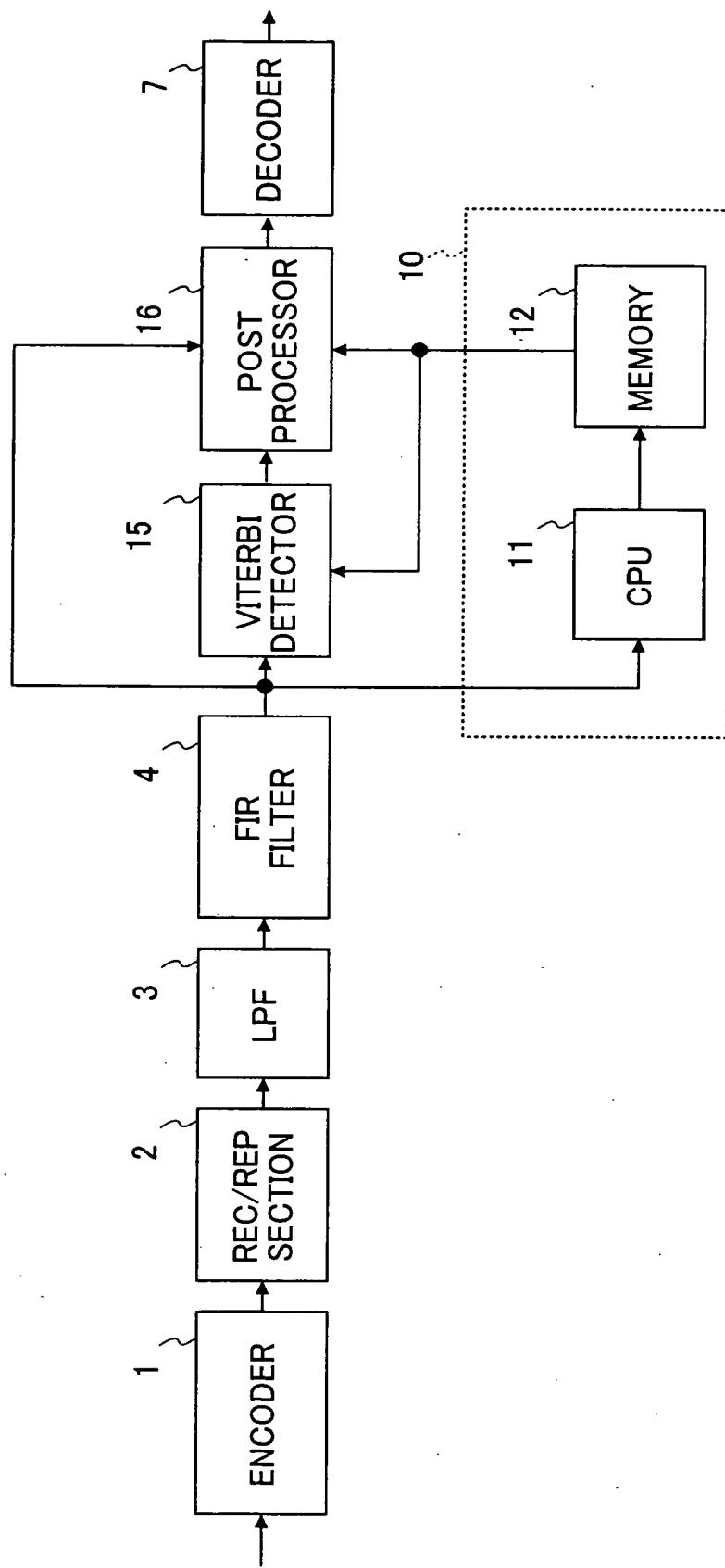


FIG.4

ak-3ak-2ak-1ak	EQUALIZATION OUTPUT b_k	
	IDEAL EQUALIZATION VALUE	AVERAGE VALUE OF ACTUAL EQUALIZED WAVEFORM
0000	0	μ_0
0001	+1	μ_1
0010	+1	μ_2
0011	+2	μ_3
0100	-1	μ_4
0101	0	μ_5
0110	0	μ_6
0111	+1	μ_7
1000	-1	μ_8
1001	0	μ_9
1010	0	μ_{10}
1011	+1	μ_{11}
1100	-2	μ_{12}
1101	-1	μ_{13}
1110	-1	μ_{14}
1111	0	μ_{15}

FIG.5

ak-2ak-1ak	STATE
000	S ₀
001	S ₁
010	S ₂
011	S ₃
100	S ₄
101	S ₅
110	S ₆
111	S ₇

FIG. 6

STATE OF 1 BIT BEFORE	PRESENT STATE		IDEAL VALUE		AVERAGE VALUE OF ACTUAL EQUALIZED WAVEFORM				
	ak	0	1	ak	0	1	ak	0	1
S ₀	S ₀	S ₁		0	+1		μ_1	μ_0	
S ₁	S ₂	S ₃		+1	+2		μ_2	μ_3	
S ₂	S ₄	S ₅		-1	0		μ_4	μ_5	
S ₃	S ₆	S ₇		0	+1		μ_6	μ_7	
S ₄	S ₀	S ₁		-1	0		μ_8	μ_9	
S ₅	S ₂	S ₃		0	+1		μ_{10}	μ_{11}	
S ₆	S ₄	S ₅		-2	-1		μ_{12}	μ_{13}	
S ₇	S ₆	S ₇		-1	0		μ_{14}	μ_{15}	

FIG. 7

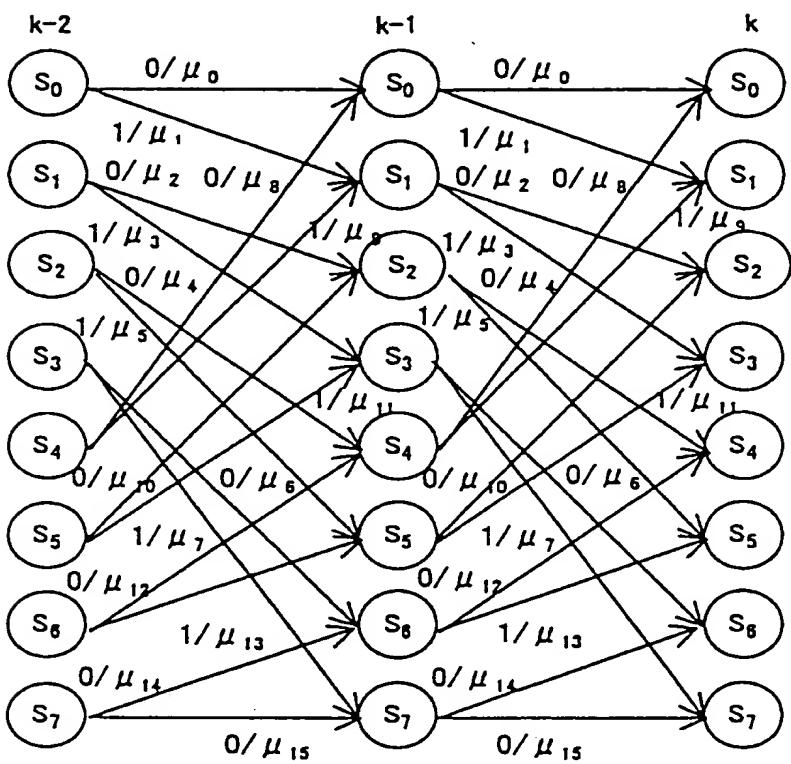


FIG. 8

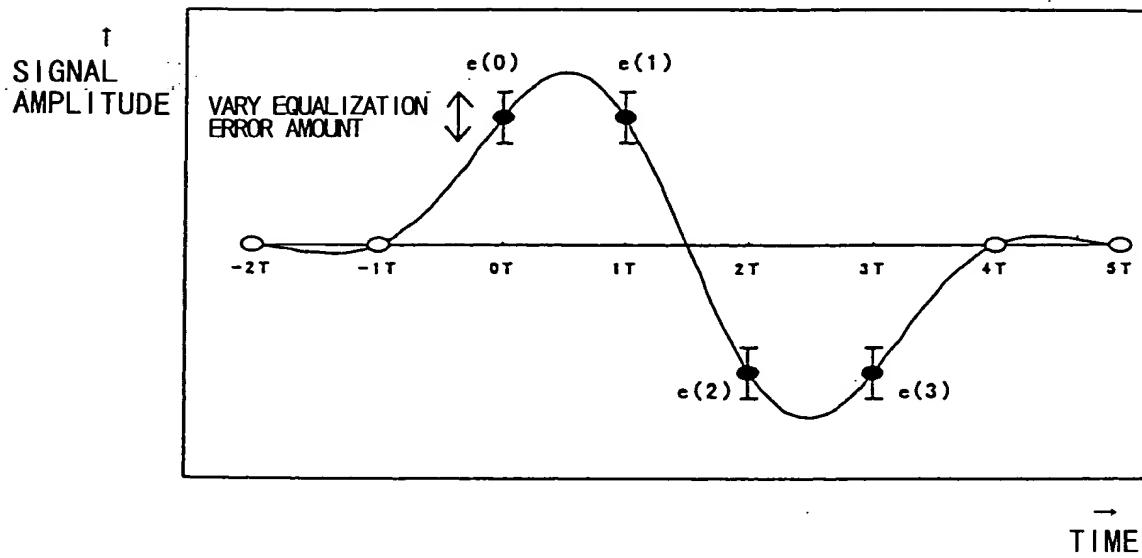


FIG. 9

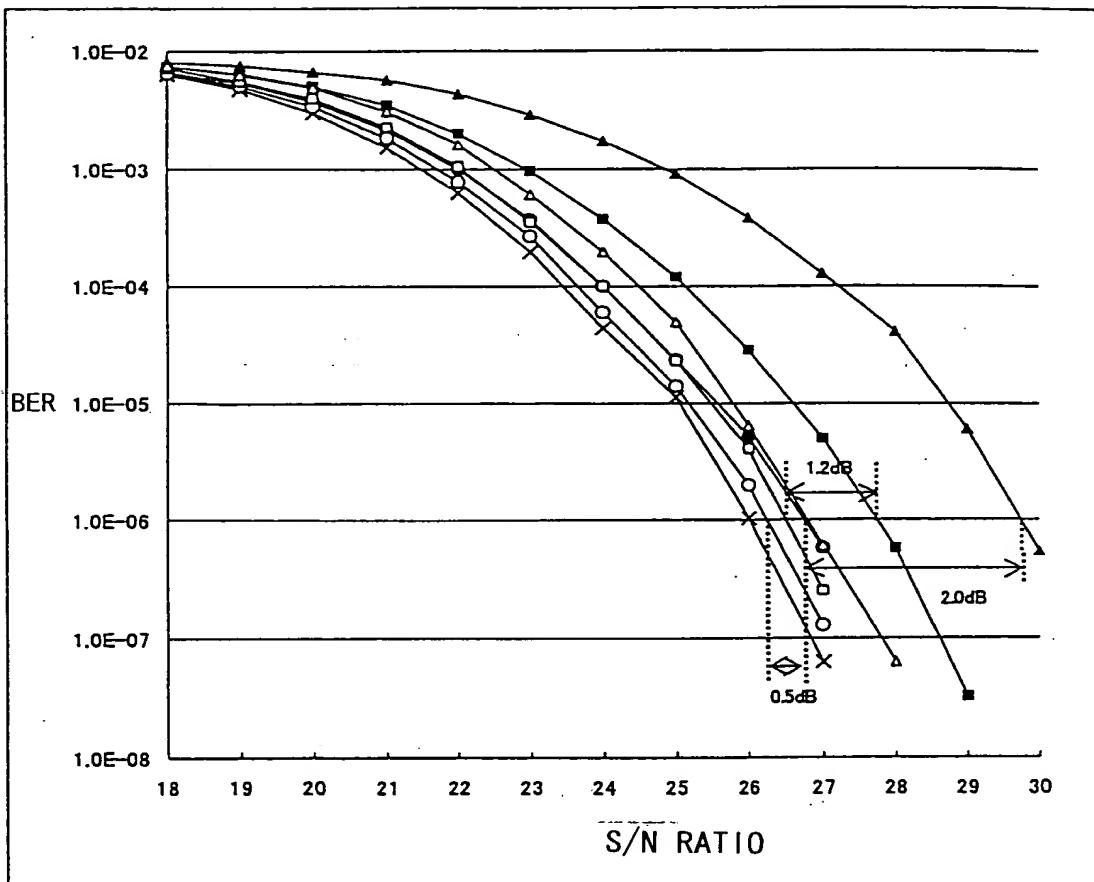


FIG.10

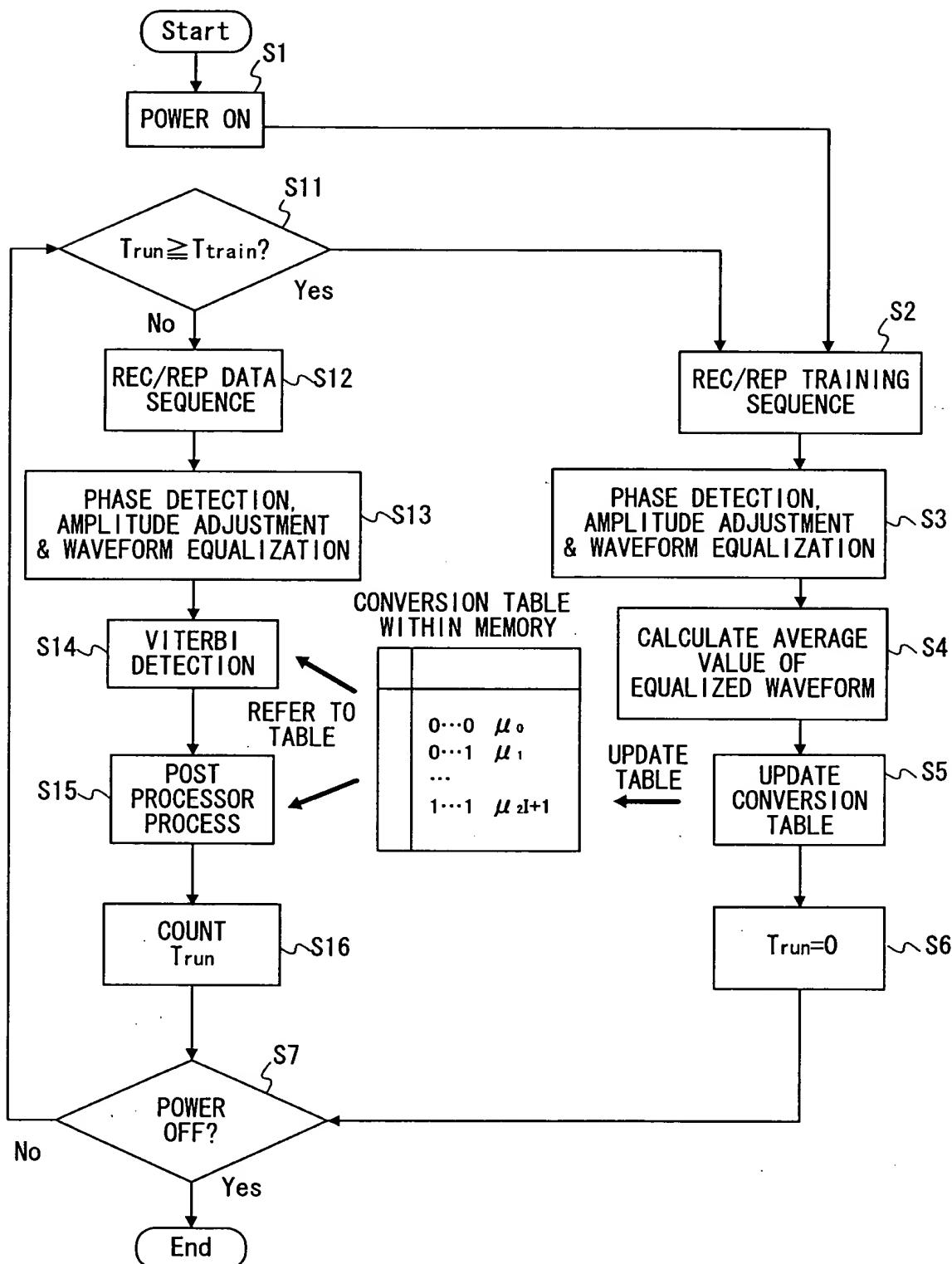


FIG.11

a_{k-2}	a_{k-1}	a_k	COMPENSATION AMOUNT
0	0	1	-
0	1	1	T_{01}
1	0	1	T_{10}
1	1	1	T_{11}

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

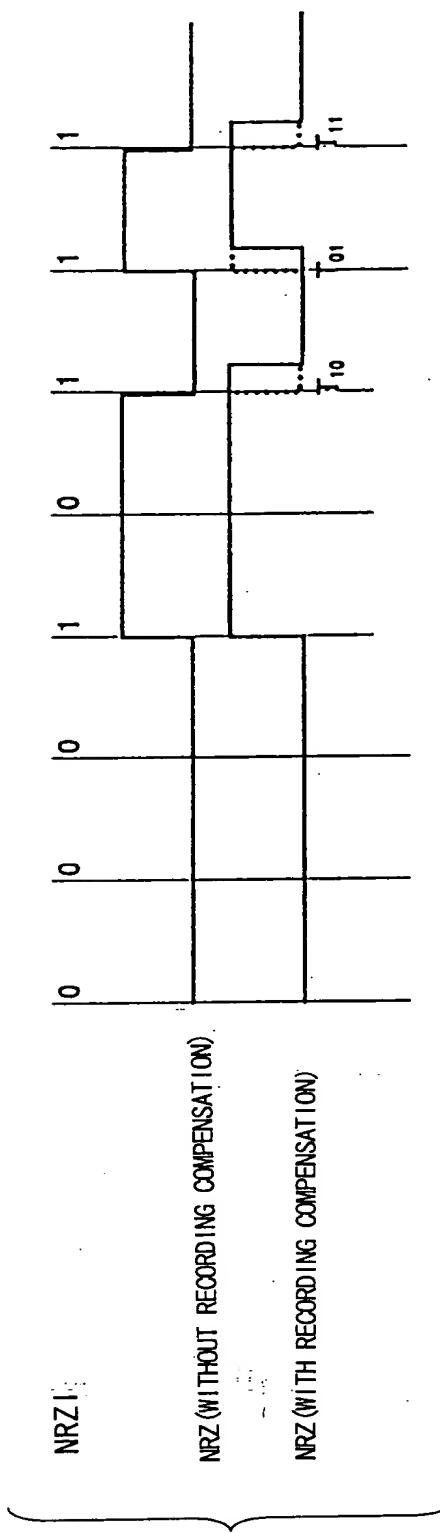
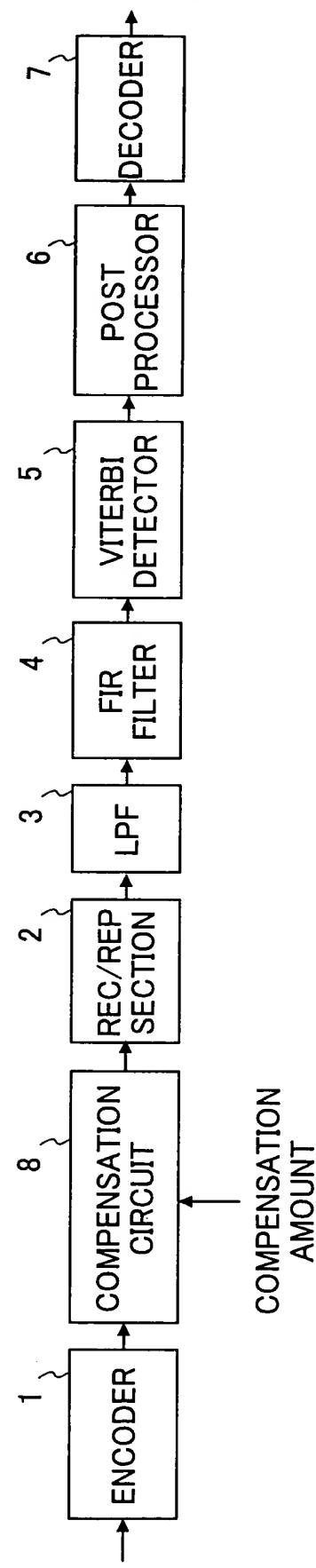


FIG. 12

FIG.13



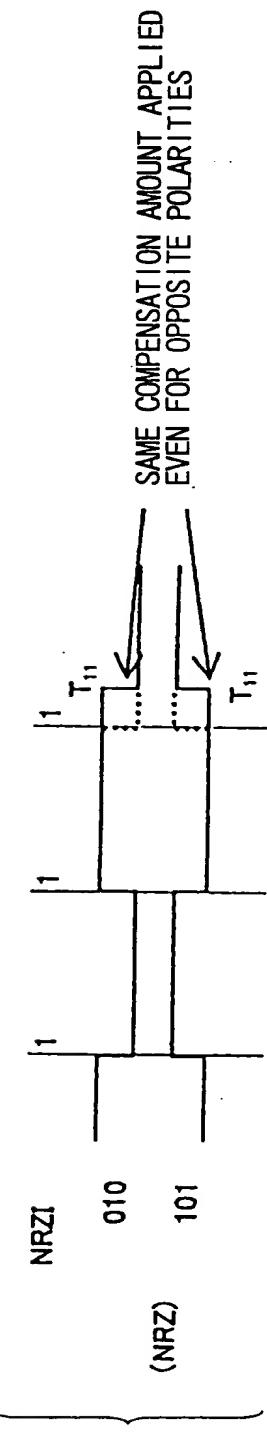


FIG. 14

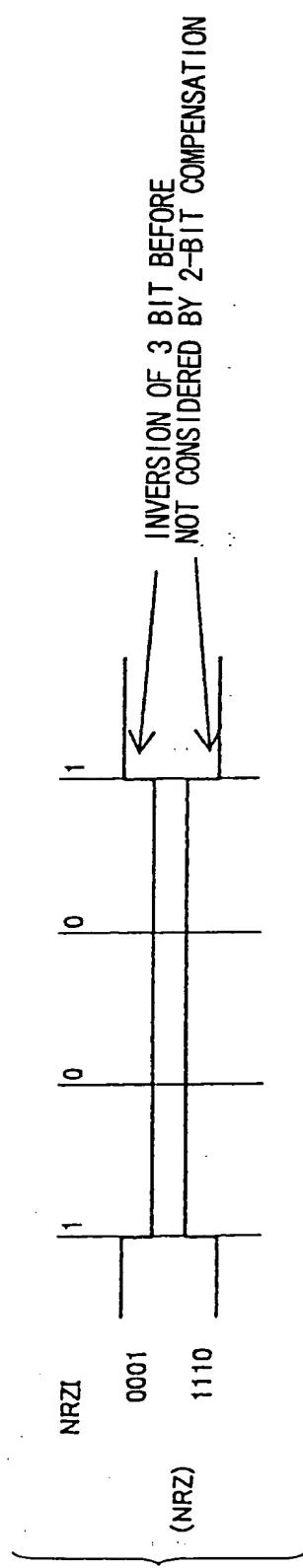


FIG. 15

FIG. 16

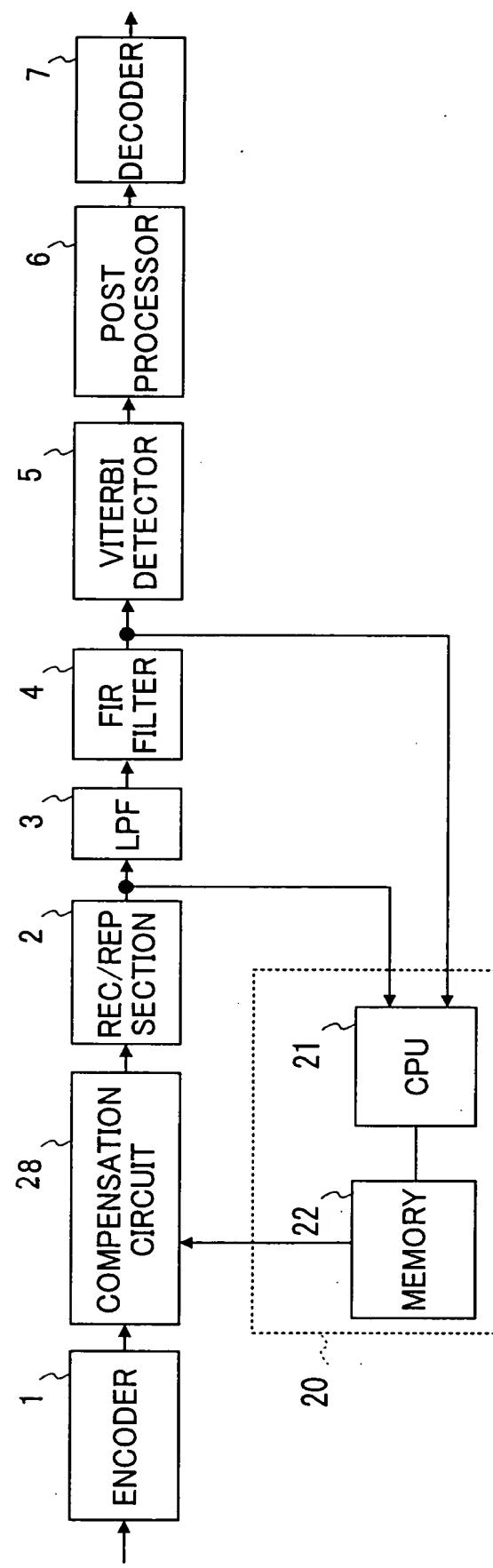
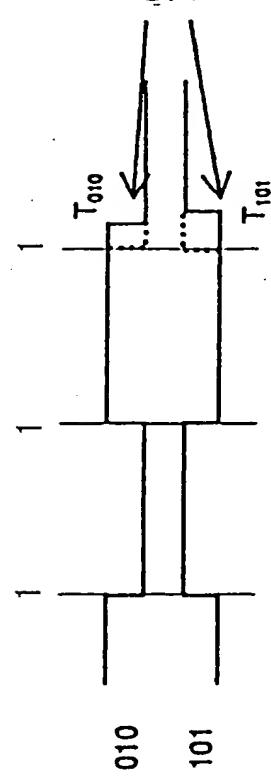


FIG.17

a_{k-1}	\dots	a_k	\dots	a_{k+l}	POLARITY	COMPENSATION AMOUNT
0	\dots	1	\dots	0	+	$T_0\dots 1\dots 0+$
\dots	\dots	\dots	\dots	\dots	-	$T_0\dots 1\dots 0-$
\dots	\dots	\dots	\dots	\dots	\dots	\dots
1	\dots	1	\dots	1	+	$T_0\dots 1\dots 1+$
					-	$T_0\dots 1\dots 1-$

COMPENSATION AMOUNT CORRESPONDING
TO POLARITY APPLIED



(NRZ)

FIG. 18

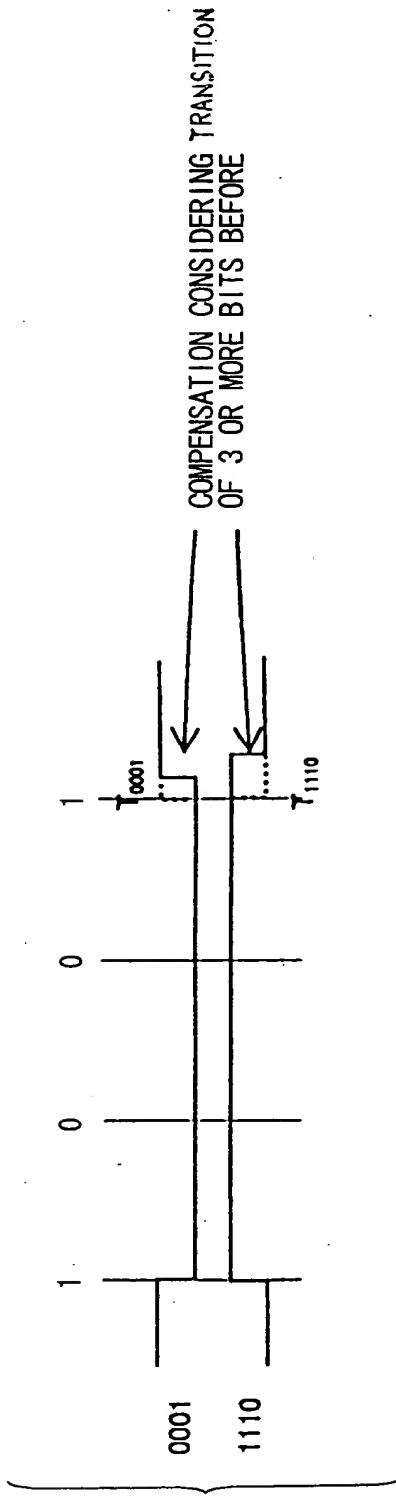


FIG. 19

FIG.20

RECORDING SEQUENCE				AVERAGE VALUE $w(t)$ ($-1 \leq t \leq 1$) OF OVER-SAMPLED REPRODUCED OR EQUALIZED WAVEFORM			
a_{k-1}	\dots	a_k	\dots	a_{k+1}	POLARITY	$w(-1)$	\dots
0	\dots	1	\dots	0	+	$W(-1)0\dots1\dots0+$	\dots
0	\dots	1	\dots	0	-	$W(-1)0\dots1\dots0-$	\dots
0	\dots	1	\dots	0	+	$W(-1)0\dots1\dots1+$	\dots
0	\dots	1	\dots	0	-	$W(-1)0\dots1\dots1-$	\dots
\dots	\dots	\dots	\dots	\dots	\dots	\dots	\dots
1	\dots	1	\dots	0	+	$W(-1)1\dots1\dots0+$	\dots
1	\dots	1	\dots	0	-	$W(-1)1\dots1\dots0-$	\dots
1	\dots	1	\dots	1	+	$W(-1)1\dots1\dots1+$	\dots
1	\dots	1	\dots	1	-	$W(-1)1\dots1\dots1-$	\dots

FIG. 21

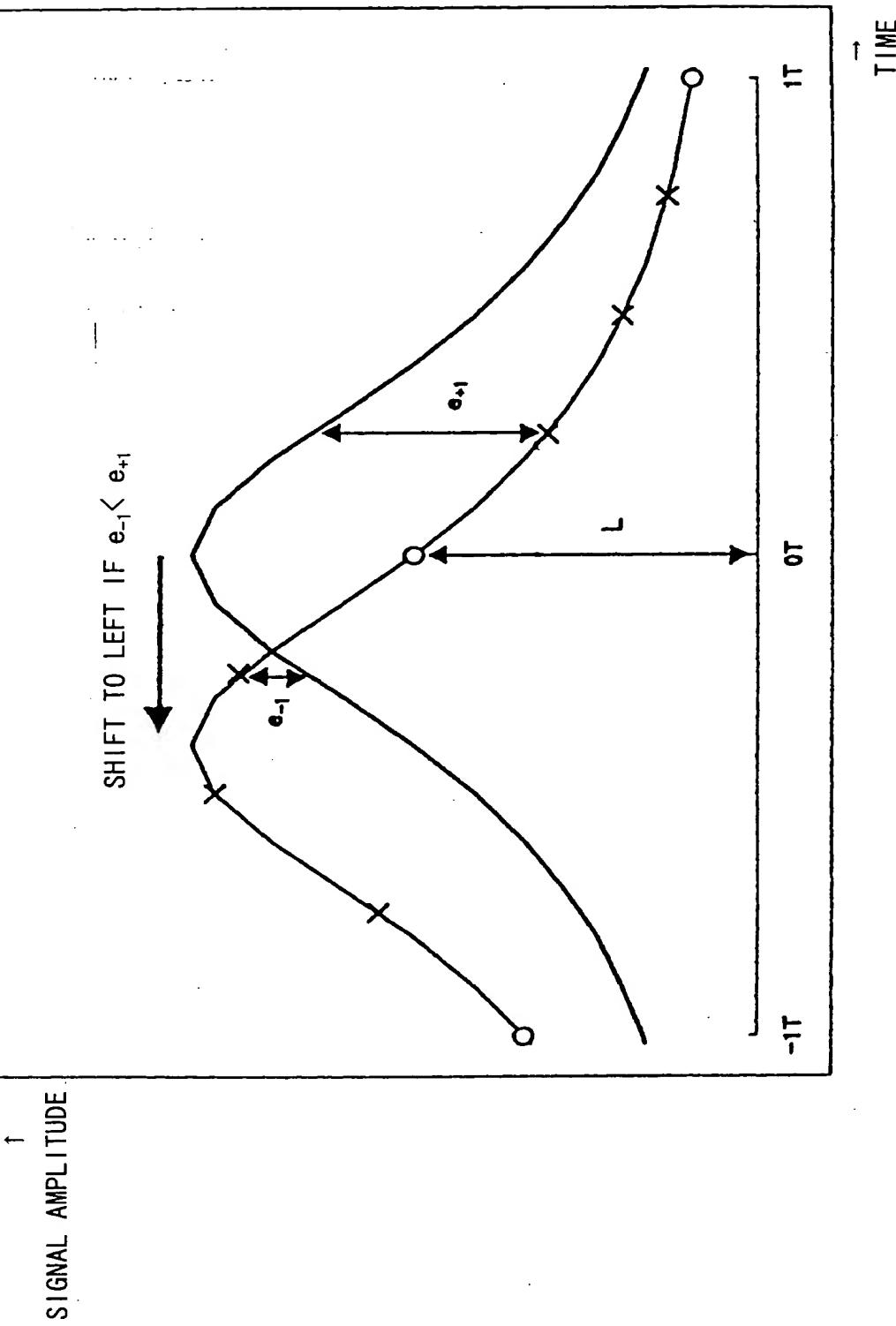


FIG. 22

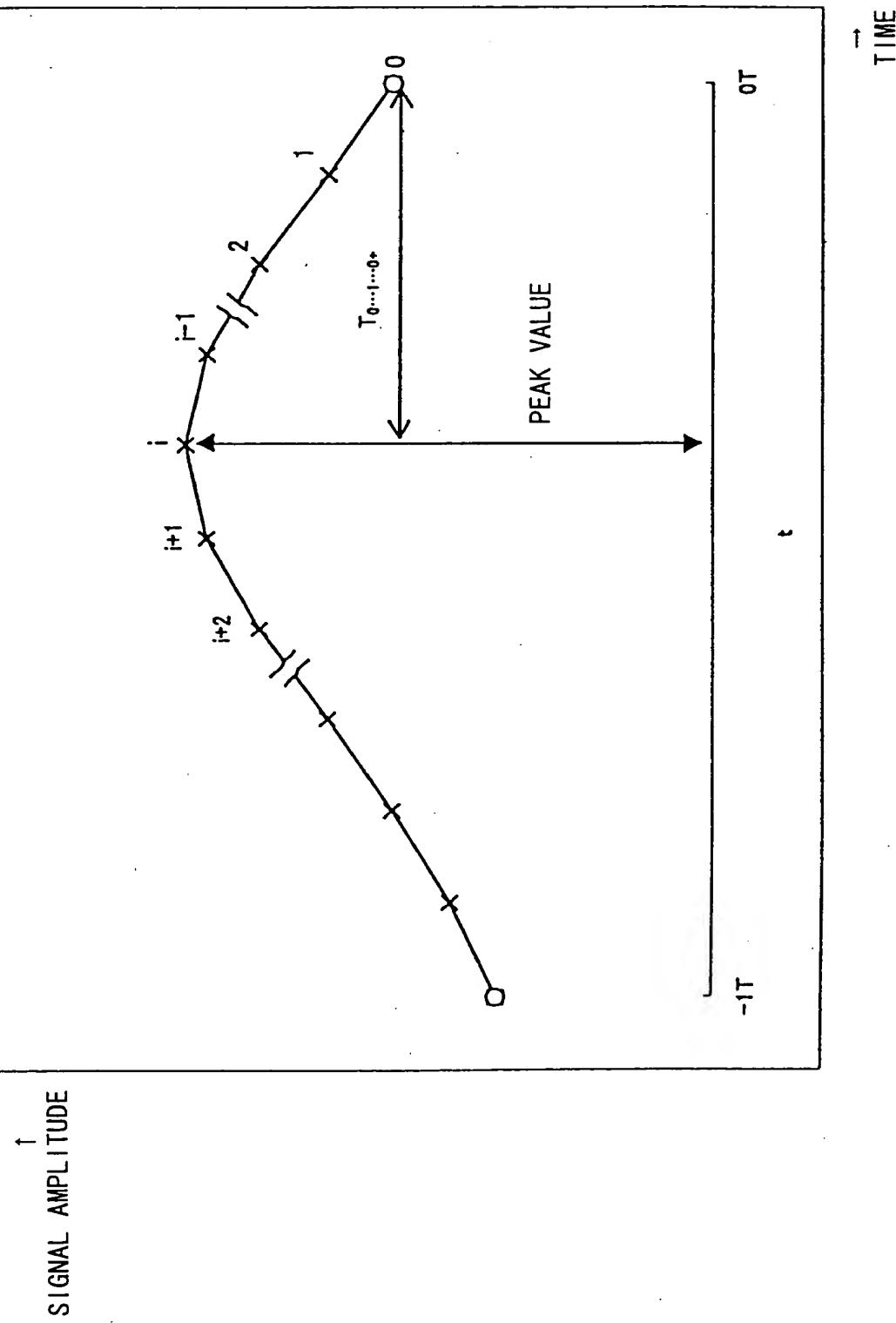


FIG. 23

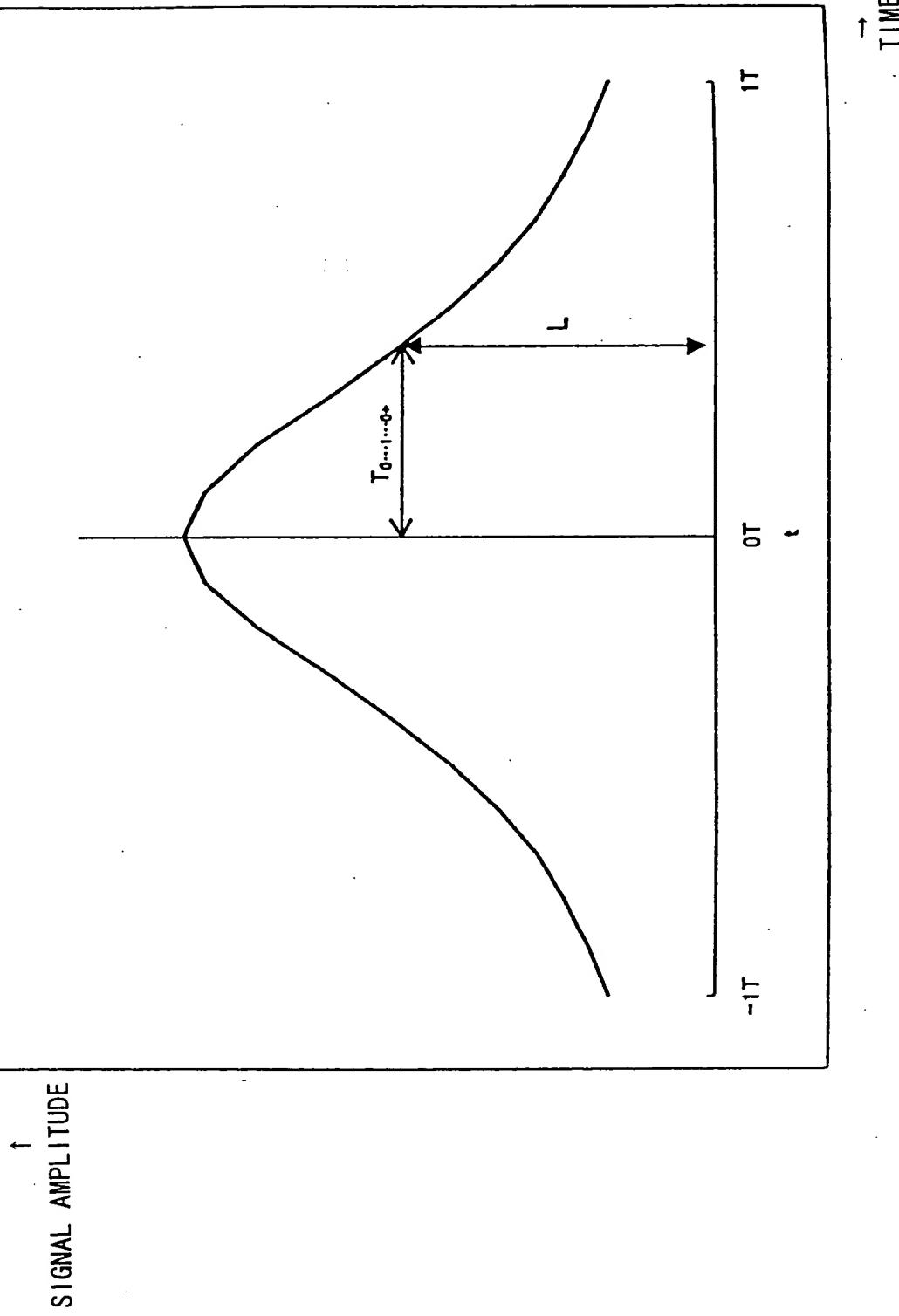


FIG.24

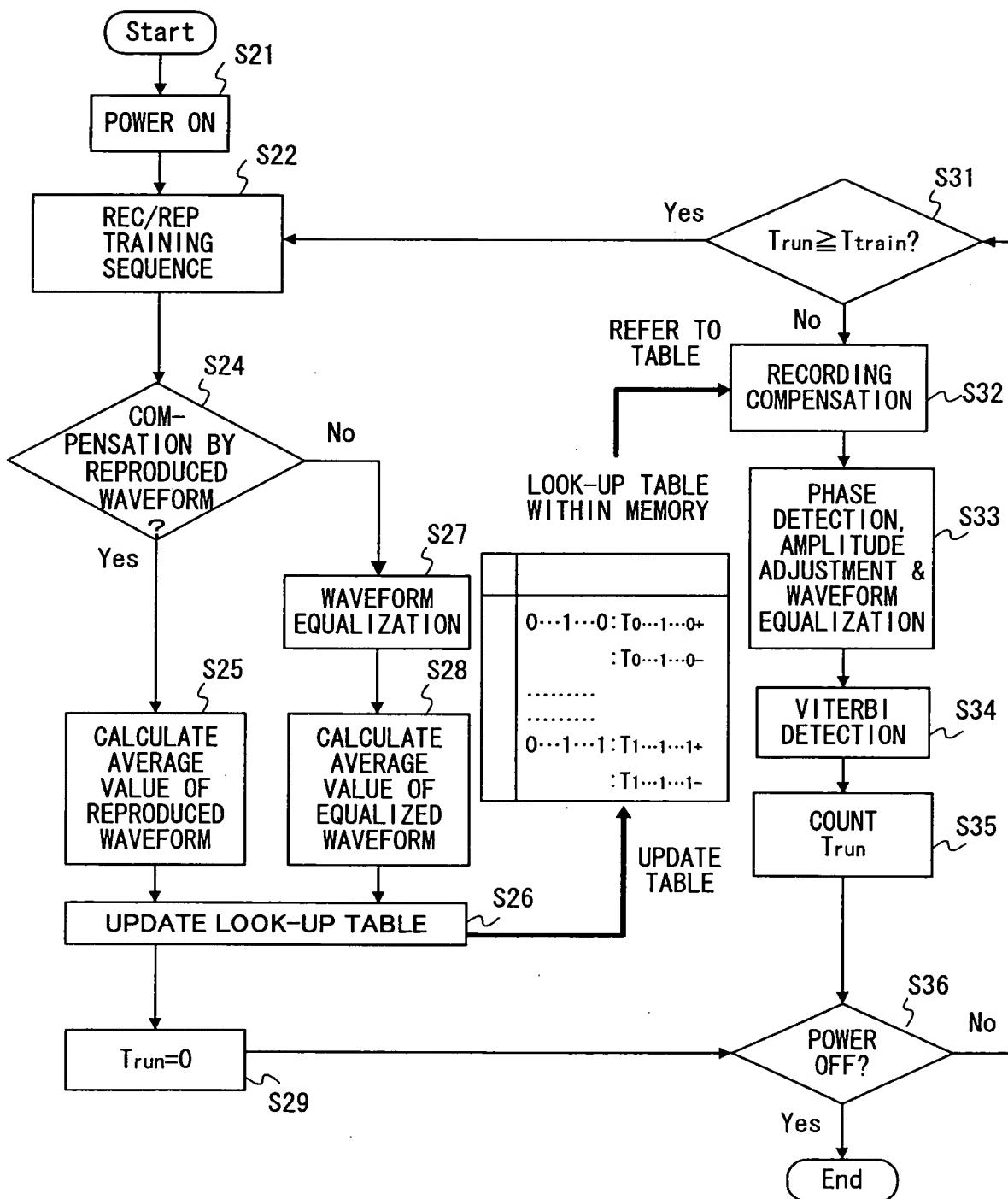


FIG.25

